



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Safety

*Technical Innovation Policy Branch
800 Independence Ave SW
Washington, DC 20591*

November 24, 2021

VIA EMAIL

Mr. David N. Loffing
777 Chief Project Engineer
The Boeing Company
PO Box 3707, MC 0E-301
Seattle, Washington 98124-2207

Dear Mr. Loffing:

This is in regard to your letter dated August 10, 2021, in which you requested, on behalf of The Boeing Company (Boeing), a partial exemption from the requirements of §§ 25.901(c) and 25.903(c), item #6 *Engine Torque Loads* of Special Conditions 25-ANM-78, and appendix K25.1.1 to part 25 of title 14, Code of Federal Regulations (14 CFR). The requested relief relates to propulsion system compliance for engine fan blade-out failures on Boeing Model 777-200 and 777-300 airplanes equipped with Pratt & Whitney engines. Boeing is requesting the exemption for a period of 5 years while it incorporates design modifications to reduce risks associated with fan blade-out events. A summary of your request was posted in the Federal Register for public comment on October 14, 2021 (86 FR 57246).

Our letter of October 6, 2021 notified you that we are currently in the process of reviewing your request, and that we would contact you if we needed additional information. The purpose of this letter is to request additional information from Boeing before we can proceed further with processing your exemption request.

In addition to Boeing's public petition that resides in Docket No. FAA-2021-0673 (at Regulations.gov), we have also received a Boeing proprietary comparative safety assessment that was submitted to supplement your petition. After further review, it was determined that we require the following additional information to complete the review of your request:

1. Title 14 CFR 11.81(e) requires petitioners to state "the reasons why granting the exemption would not adversely affect safety, or how the exemption would provide a level of safety at least equal to that provided by the rule from which you seek." Please clarify how the comparative safety assessment, based on the Boeing fleet safety assessment, does not adversely affect safety compared to demonstrating full compliance to 14 CFR §§ 25.901(c) and 25.903(c), item #6 *Engine Torque Loads* of Special Conditions 25-ANM-78, and appendix K25.1.1 to part 25. Boeing's supplemental proprietary data provides a detailed description of the comparative safety assessment; however, it does not appear to include an explanation of how the relative fleet risk does not adversely affect safety. Without divulging proprietary details, describe how Boeing's proposed process shows that an incremental design change or combinations of design changes does not

adversely affect safety compared to demonstrating full compliance with the requirements from which you have requested relief.

2. Explain how Boeing proposes to control and maintain the proposed level of safety, including the implementation of each incremental design change and ensuring operators incorporate a fully compliant design by the end of the requested 5-year exemption duration.
3. Clarify how Boeing will utilize a temporary exemption, if granted, for any additional design changes that may be required to show full compliance to 14 CFR §§ 25.901(c) and 25.903(c), item #6 *Engine Torque Loads* of Special Conditions 25-ANM-78, and appendix K25.1.1 to part 25.

Please provide the requested information within 30 days of the date of this letter by submitting it to the established docket (FAA-2021-0673) at [regulations.gov](https://www.regulations.gov). If the additional information is not submitted within that timeframe, the agency will cease work on the project with no further correspondence to you. Please note that work will only resume when the FAA receives the additional information. If Boeing considers any of the additional information to be proprietary, mark the material as “PROPRIETARY” and submit it directly to the FAA addressed to the person below.

You will be advised of the agency’s decision on your petition as soon as possible once we receive the requested information. If you have any questions or concerns regarding your petition or the petition process, please contact Doug Bryant at (206) 231-3166 or by e-mail at douglas.n.bryant@faa.gov.

Sincerely,

SHERRY L VEVEA  Digitally signed by SHERRY L
VEVEA
Date: 2021.11.24 12:23:42 -08'00'

Sherry Vevea
Acting Manager, Propulsion and Energy
Policy and Innovation Division
Aircraft Certification Service